ThinkPad® T420 4180 (Optimus)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB[8] rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	IEEE 1394	Smart Card Reader	Finger print reader	Blue-tooth	Bat-tery cells	Intel vPro	Global (G) GMP (P)	Pre-load
4180-MMU	i7-2620M	4GBx1	14.0" HD+	720p	500G 7200	Intel 6205[28]	WWAN upg	1394		Finger	Blue	***9***	vPro	G	Pro 64
4180-65U	i5-2540M	2GBx2	14.0" HD+	720p	500G 7200	Intel 6205	WWAN upg	1394		Finger	Blue	***9***	vPro	G	Pro 64
4180-64U	i5-2520M	2GBx2	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	1394			Blue	6	vPro	G	Pro 64
☞ 4180-NEU	i5-2540M	4GBx1	14.0" HD		320G 7200	Intel 6205	WWAN upg	1394	Smart			6	vPro		Pro 64

- ***These models have a depot repair service 3-year limited warranty***
- ***These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)***

Positioning	*Premiere performance; two spindles*
Processor	**Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache)**, DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology **Intel Core i5-2540M processor (dual-core, 2.60GHz, 3MB Cache)**, DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology **Intel Core i7-2620M processor (dual-core, 2.70GHz, 4MB Cache)**, DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology
Memory	8GB max[7] / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets
Optical	DVD burner, 12.7mm Ultrabay Enhanced, removable
Ultrabay	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access
SATA disk	*Some:* Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high *Some:* Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ *All:* removable, upgradable, supports the second disk, Shock Mounted Hard Drive
mSATA™ SSD	None
Widescreen display	*Some:* **14.0"** (355mm) **HD (1366x768) color**, anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio *Some:* **14.0"** (355mm) **HD+ (1600x900) color**, anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio
Camera	*Some:* HD720p resolution, wider view angle, low light sensitive, fixed focus
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, **Intel HD Graphics 3000** in processor, and **NVIDIA NVS™ 4200M**, PCI Express® x16, **1GB** memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports three independent displays; *Maximum external resolution:* 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)
Keyboard	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar[13], magnifying glass
Touchpad	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions
Dimensions[3]	*14.0W" (WxDxH):* 13.4" x 9.17" x 1.18–1.20"; 340.5 x 233.0mm x 30.1–30.5mm
Weight[2]	*4-cell:* from 4.65 lb (2.11kg); *6-cell:* from 4.84 lb (2.20kg); *9-cell:* from 5.22 lb (2.37kg)
Case material	*Display cover:* Carbon-fiber / Glass-fiber hybrid; *Bottom:* Carbon-Fiber Reinforced Plastic
Battery - type	Lithium Ion 4-cell, 6-cell, or 9-cell, supports optional Slice battery (57Y4545) as 2nd battery
Battery - life[10]	*6-cell:* up to 9.0 hr; *9-cell:* up to 15.0 hr; *9-cell plus Slice battery:* up to 30.0 hr
Chipset	**Mobile Intel QM67 Express Chipset**
ExpressCard	One slot (ExpressCard/34)
Smart Card read	*Some:* Smart Card reader
Multicard reader	4-in-1 reader (MMC, SD, SDHC, SDXC)
Ports	Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)
PCIe Mini Card	Two PCI Express Mini Card slots
WLAN[4]	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2
WWAN	Wireless WAN upgradable
Modem	None
IEEE 1394	IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)
Bluetooth™	*Some:* Bluetooth 3.0 wireless, LED indicator
Ethernet	*Non-vPro model:* Intel 82579LF Gigabit Network Connection (Lewisville), PHY, PCIe x1 *vPro model:* Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1
Intel AMT	Intel Active Management Technology (iAMT)
Audio support	High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack
Security	Power-on password, hard disk password, supervisor password, security keyhole
Security chip	Trusted Platform Module, TCG 1.2-compliant
Fingerprint reader	*Some:* UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip
Limited warranty[12]	**3-years**/1-yr battery - depot repair service / service upgrades[22] available

Preloaded operating system[20]
- Genuine Windows® 7 Professional 64

Ready to install applications[14] (all OSes; only some listed)
- Rescue and Recovery™
- Access Connections™
- Fingerprint Software (fingerprint models)
- Password Manager (fingerprint models)
- ThinkVantage System Update
- ThinkVantage Power Manager
- ThinkVantage Toolbox

Preloaded applications[14] (all OSes; only some listed)
- Norton™ Internet Security 2011 (30 days of virus definitions)
- Adobe® Reader®
- Skype™ for Windows
- Windows Live™ Essentials
- Microsoft Office 2010 preloaded; purchase product key to activate
- Corel® WinDVD® (DVD±RW)
- Corel Burn.Now™ Lenovo Edition (DVD±RW)
- Corel DVD MovieFactory® Lenovo Edition (DVD±RW)

Supports ThinkVantage® technologies

90-watt AC adapter
ThinkPad Roll Cage (one-piece magnesium frame)
EPEAT™ Gold rating
ENERGY STAR® 5.0-compliant
RoHS-compliant
International Warranty Service[17]
24 hour x 7 day[18] toll-free support during the warranty period[12] via 800-426-7378

For compatible accessories, please go to O-T420 sheet;

For ThinkPlus™,[22] service upgrade options, please go to S-TA sheet

See footnotes for more detailed information

☞ US model announced March 1, 2011; previous models on February 22, 2011

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